# ADDENDUM TO: POWERS OF A MATRIX AND COMBINATORIAL IDENTITIES 

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## Addendum

Prof. Z.-W. Sun has kindly informed us of a two-variable identity similar to one in our paper, that is due to Lagrange in 1741. This identity can be found on pp. 57, 58 in The New Book of Prime Number Records, by Paulo Ribenboim, published by Springer-Verlag in 1995. As far as we know, our generalization to an $n$-variable identity is new, as is our expression of the $n$th power of a $k \times k$ matrix in terms of its entries (as opposed to its eigenvalues and eigenvectors). We thank Prof. Sun for bringing the Lagrange identity to our notice.

